II Sem / N Batch OOP Lab 17th Feb 2026 – Session 6

Understanding Dynamic Construction and Destruction of Objects, and Operator Overloading

Design and implement a C++ program to represent a **Box** in three-dimensional space using a class named Box. Each box is characterized by its **length**, **breadth**, and **height**.

Program Requirements

1. **Class Definition**
   - Define a class Box with the following private data members:
     - length
     - breadth
     - height
2. **Constructors**
   - Provide:
     - A **default constructor** to initialize all dimensions to zero.
     - A **parameterized constructor** to initialize the box with given dimensions.
3. **Member Functions**
   - A function to **calculate and return the Volume** of the box.
   - A function to **display** the dimensions and volume of the box.
4. **Overloading Operators : ==, > , >> and +(** using friendly function) **for respective operations on the objects.**

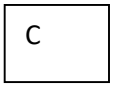
5. **Operations to demonstrate:**

a. Creation of boxes using default constructors

b. Creation of boxes C and D using parameterized constructors

Return Boolean values True /False for 3rd and 4th

c. Checking which is bigger based on their lengths: box A 

or C 

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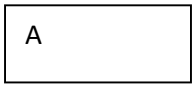
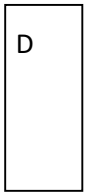
d. Finding whether boxes A 

and D 

are equal based on their volumes.

e. Creation of box E which is double the size of C.

f. Creation of box F as a replica of E.